

Chapter 1: About the VT100 Gateway

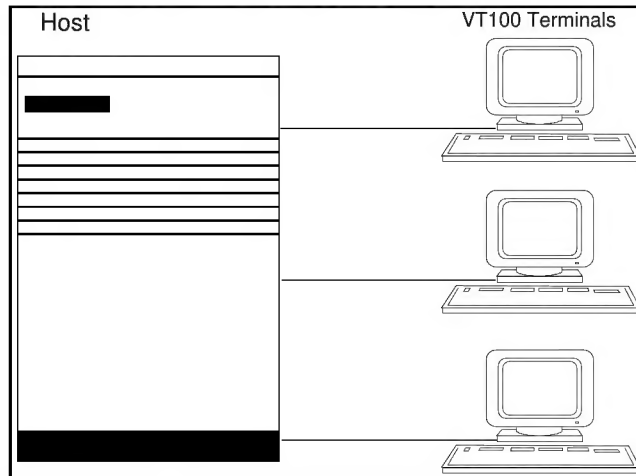
This chapter provides an introduction to the Meridian IVR 2.0/I VT100 Gateway as well as

- background on the VT100 terminal
- descriptions of the Meridian IVR 2.0/I VT100 Gateway software
- a description of the TRS configuration
- a brief glossary of terms used in this guide

The VT100 terminal

The VT100 terminal, developed by the Digital Equipment Corporation (DEC), has become one of the most widely used computer terminals in the world. This widespread acceptance makes the VT100-style of host communication a standard for all computer manufacturers. See Figure 1-1.

Figure 1-1
Terminals connected to a host computer



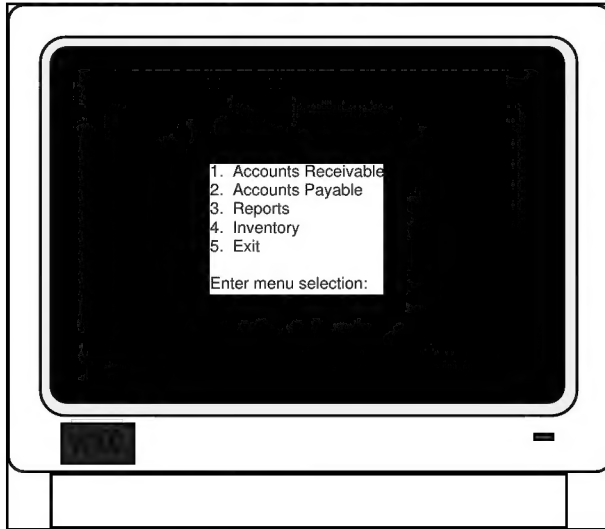
The VT100 terminal uses an asynchronous communication protocol to transmit characters to and from a host computer. The VT100 Gateway communicates with a host through a serial port and a modem, or through a serial port and a direct connection. With respect to the VT100 Gateway product, a host computer is any computer that can accept a VT100 terminal connection, including mainframes, minicomputers, and workstations.

The standard VT100 terminal has a 24x80 character display, and can be accessed *non-sequentially*. This means the terminal can access text anywhere on the screen. This allows you to delete and insert text, scroll the page, and move the cursor to any position on the screen. Your ability to access the VT100 screen non-sequentially depends on the host application you are using.

Figure 1-2 shows a sample VT100 terminal running a sample host application. This sample accounting application is used throughout the guide to illustrate how to develop applications using the VT100 Gateway.

Note: The screens shown in this guide are examples only and are not part of any real application.

Figure 1-2
VT100 application screen sample



An active host to terminal connection is called a session. The VT100 Gateway can execute a series of transactions during a session. A transaction is the series of steps required to perform a specific function like finding a customer's account balance. When one transaction finishes, the session is available to execute another transaction. The Meridian IVR 2.0/I application processor, when configured with the VT100 Gateway product, can control multiple simultaneous sessions with the host computer.

The Meridian IVR 2.0/I VT100 Gateway product allows a Meridian IVR 2.0/I application to establish sessions with a host just as multiple VT100 terminals would. Any programs or commands you can execute from a VT100 terminal, you can execute with Meridian IVR 2.0/I via the VT100 Gateway. Meridian IVR 2.0/I can store host output in the buffers of an application, then play the information to a caller.

The application processor physically connects to the host via a modem if the host is not local, or via a null modem connector if the host resides locally.

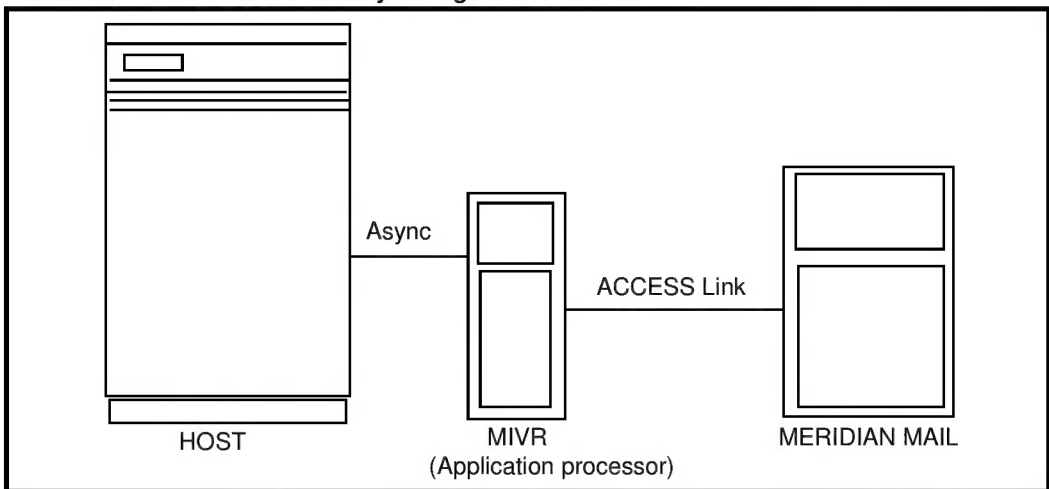
The VT100 Gateway software

You can install the Meridian IVR 2.0/I VT100 Gateway on Intel's new generation 64-bit Pentium™ microprocessor. To support the VT100 Gateway, the application processor must

- have an ACCESS link connected to Meridian Mail
- be connected to one or more host computers via an asynchronous connection
- have enough serial ports to provide enough terminal connections (one digiBoard with 8 ports per card)

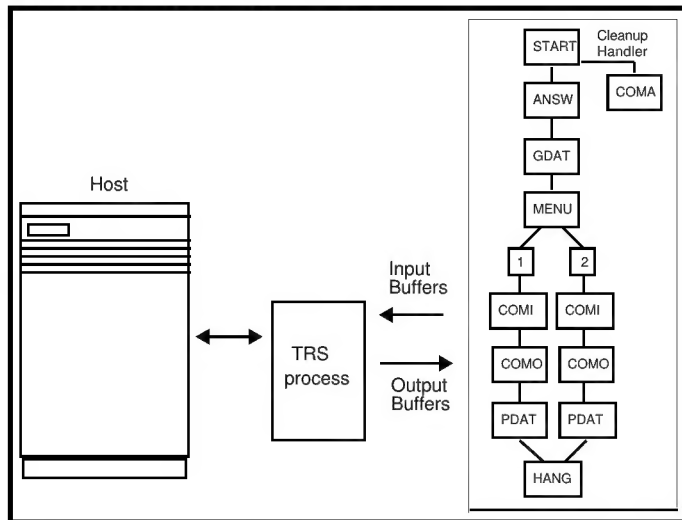
Northern Telecom (Nortel) does not supply the VT100 communication hardware. Figure 1-3 shows the typical hardware configuration for processing VT100 terminal sessions.

Figure 1-3
Meridian IVR 2.0/I VT100 Gateway configuration



A Meridian IVR 2.0/I process called the Terminal Resource Server (TRS) controls all VT100 sessions, as well as manages all host connections. The TRS runs as a stand-alone process within the Meridian IVR 2.0/I architecture, and starts when Meridian IVR 2.0/I is started. To use the TRS, place a COMI cell in the Meridian IVR 2.0/I call flow at the point where you need to establish a host connection. The COMI cell sends requests for information to the TRS process, which then passes them on to the host. A COMO cell retrieves the information sent to the TRS process by the host, and then ends the transaction. A COMA cell aborts the host transaction in the case of a hang-up or an error. This process is shown in Figure 1-4.

Figure 1-4
TRS communication process



The TRS process uses template files (described in Chapter 2) to control the communication process between the Meridian IVR 2.0/I application and the host computer.

As illustrated in Figure 1-4, the TRS uses the data passed to it by the input buffer as a signal to establish a terminal session. The TRS then controls the screen display on the host computer.

ATTENTION!

The TRS process for managing calls is restricted to handling one active line at a time (single threaded mode).

Therefore, you should add a loop to applications that interact with the TRS so that customers who call at peak hours are informed on the status of their call. For example, you can allow callers to hear a recurring message that an operator will assist them as soon as possible.